wherein the solid-liquid separation performed after the cooling crystallization includes press filtration.

11. (New) The manufacturing method according to Claim 10, wherein the mixture containing dimethylnaphthalenes is a mixture composed of dimethylnaphthalene isomers.

12. (New) The manufacturing method according to Claim 10, wherein the press filtration is performed at a pressure of 10 kg /cm^2 or more.

13. (New) The manufacturing method according to Claim 10, wherein the mixture containing dimethylnaphthalenes used as a feedstock includes 5 wt% or more of 2,7-dimethylnaphthalene.

14. (New) The manufacturing method according to Claim 10, wherein the cooling crystallization is performed for a mixture containing dimethylnaphthalenes which includes less than 25 wt% of 2,6-dimethylnaphthalene.

15. (New) The manufacturing method according to Claim 10, wherein the washing step is performed for a solid component containing 80% or more of 2,6-dimethylnaphthalene using a solvent, and further comprising steps of performing solid-liquid separation and distillation after the washing step, whereby a 2,6-dimethylnaphthalene having a high purity of 99% or more is obtained.

16. (New) The manufacturing method according to Claim 10, wherein the solvent used in the washing step is an aliphatic hydrocarbon and/or alicyclic hydrocarbon having 5 to 10 carbon atoms.

17. (New) The manufacturing method according to Claim 10, wherein the press filtration is performed using a tube press.

18. (New) A method for manufacturing highly pure 2,6-dimethylnaphthalene comprising: a step of performing cooling crystallization of a mixture containing

dimethylnaphthalenes which includes 2,6-dimethylnaphthalene; a step of performing solid-liquid separation to obtain a solid component; and a washing step of washing the solid component using a solvent; wherein the washing step is performed at least twice, and a part or the entirety of a mother liquor obtained in a second washing step or in a subsequent washing step is used as a solvent in a washing step performed prior to the washing step at which the mother liquor is obtained.

19. (New) The manufacturing method according to Claim 17, wherein the mixture containing dimethylnaphthalenes is a mixture composed of dimethylnaphthalene isomers.

20. (New) The manufacturing method according to Claim 17, wherein the press filtration is performed at a pressure of 10 kg/cm^2 or more.

21. (New) The manufacturing method according to Claim 17, wherein the mixture containing dimethylnaphthalenes used as a feedstock includes 5 wt% or more of 2,7-dimethylnaphthalene.

22. (New) The manufacturing method according to Claim 17, wherein the cooling crystallization is performed for a mixture containing dimethylnaphthalenes which includes less than 25 wt% of 2,6-dimethylnaphthalene.

23. (New) The manufacturing method according to Claim 17, wherein the washing step is performed for a solid component containing 80% or more of 2,6-dimethylnaphthalene using a solvent, and further comprising steps of performing solid-liquid separation and distillation after the washing step, whereby a 2,6-dimethylnaphthalene having a high purity of 99% or more is obtained.

24. (New) The manufacturing method according to Claim 17, wherein the solvent used in the washing step is an aliphatic hydrocarbon and/or alicyclic hydrocarbon having 5 to 10 carbon atoms.